CLAIMS

1. A lifting barrier for controlling the passage on a traffic lane, characterized by the fact that it comprises a string rail (100) in composite material.

2. The barrier according to claim 1, characterized by the fact that the spring rail (100) comprises a rectilinear central tube (110) with a circular cross-section, in composite material.

3. The barrier according to any of claims 1 or 2, characterized by the fact that it comprises a central tube (110) made on the basis of 55 to 65% by weight of yarns of glass fibers, 45 to 35% by weight of yarns of carbon fibers and resin, e.g. epoxy resin.

4. The barrier according to any of claims 2 or 3, characterized by the fact that the central tube (110) consists of:

- an internal layer (112) formed with yarns of fibers, said yarns being positioned longitudinally and parallel to each other,
- a central layer (114) formed with yarns of fibers, angularly orientated as a helix relatively to the longitudinal axis of the tube,
- an external layer (116) formed with yarns of fibers, said yarns being positioned longitudinally and parallel to each other,

said internal (112), central (114) and external (116) layers being obtained simultaneously and polymerized together in an epoxy resin so as to form a single-piece composite tube.

5. The barrier according to claim 4, characterized in that the internal layer (112) of the central tube (110) is formed with glass fiber yarns with a linear weight between 60 and 70 g/ml, preferably 67 g/ml.

6. The barrier according to any of claims 4 or 5, characterized in that the central layer (114) of the tube is formed with glass fiber yarns with a linear weight between 50 and 60 g/ml, preferably 52 g/ml.

7. The barrier according to any of claims 4 to 6, characterized in that the external layer (116) of the tube is formed with carbon fiber yarns with a linear weight between 85 and 95 g/ml, preferably 90 g/ml.

8. The barrier according to any of claims 4 to 7, characterized in that the central layer (114) forms a helix, the tangent of which is orientated by an angle between 60 and 80° relatively to the longitudinal axis of the tube.

9. The barrier according to any of claims 4 to 8, characterized in that the central layer forms a helix, the tangent of which is orientated by an angle of 75° relatively to the longitudinal axis of the tube.

10. The barrier according to any of claims 1 to 9, characterized by the fact that it comprises a central tube (110) covered with a protected sleeve (120).

11. The barrier according to claim 10, characterized by the fact that the protective sleeve (120) is made in expanded polystyrene.

12. The barrier according to any of claims 10 or 11, characterized by the fact that the protective sleeve (120) is formed with two symmetrical half-shells (122, 124), the median joining plane of which corresponds to a diametrical plane of the tube (110).

13. The barrier according to claim 12, characterized by the fact that both half-shells (122, 124) are longitudinally ribbed in a complementary manner.

14. The barrier according to any of claims 10 to 13, characterized by the fact that the sleeve (120) is held on the central tube (110) by bonding, advantageously by means of a silicone adhesive.

15. The barrier according to any of claims 10 to 14, characterized by the fact that sleeve (120) is covered with a sheath (130) having the function of holding the elements in place which make up the sleeve (120), even in the case of deterioration of the latter.

16. The barrier according to claim 15, characterized by the fact that the sheath (130) is formed with heat-shrinkable polyethylene (PE).

17. The barrier according to any of claims 1 to 16, characterized by the fact that an external cover (140) covers the whole of the elements (110, 120, 130) making up the string rail (100).

18. The barrier according to claim 17, characterized by the fact that the cover (140) consists of PVC-coated polyester fabric.

19. The barrier according to any of claims 1 to 18, characterized by the fact that the external surface of the string rail (100) has strips with contrasted or alternating colors, advantageously at least partly reflective strips.

20. The barrier according to any of claims 1 to 19, taken as a combination with claim 10, characterized by the fact that the external diameter of the sleeve (120) is of the order of 100 mm.

21. The barrier according to any of claims 1 to 20, taken as a combination with claim 10, characterized by the fact that the thickness of the sleeve (120) is larger than 50 mm, typically of the order of 60 mm.

22. The barrier according to any of claims 1 to 21, characterized by the fact that the linear weight by meter of the whole of the string rail is less than 800 g/m.

23. The barrier according to any of claims 1 to 22, characterized by the fact that the string rail (100) is borne by a stirrup (200) rotatably mounted around a horizontal axis (210) on a post (300).

24. The barrier according to claim 23, characterized by the fact that the string rail (100) is rotatably mounted around a vertical axis (222), on the stirrup (200).

25. The barrier according to any of claims 23 or 24, characterized by the fact that the string rail (100) is supported by the stirrup (200), by a clamping system (230).

26. The barrier according to claim 25, characterized by the fact that the clamping system is formed with two elastic blocks (232, 234), as shoes, positioned below and above the string rail (100), respectively.